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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,062

04/12/2005

Takuya Shimada

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10/20/2008

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EXAMINER

TRAN, DUNG D

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,062	SHIMADA, TAKUYA	
	Examiner	Art Unit	
	DUNG D. TRAN	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 41-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I in the reply filed on 10/07/2008 is acknowledged.

2. Claims 1-40 have been cancelled. Newly added claims 41-51 are in this application. The newly added claims are directed to the elected Species, and have support in the application as filed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 41-51** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication 2004/0227977 A1 to Yoshida in view of U.S. Patent No. 7,345,798 B2 to Kondo and in further view of U.S. Patent No. 6,204,940 B1 to Lin et al.

5. As to **claim 41**, Yoshida discloses a color conversion method of converting a monochrome signal into a color space color signal on a color space independent of an apparatus (paragraph 0069), comprising the steps of:

setting a tint adjustment value used to adjust the monochrome signal to a desired tint desired by a user (user selecting tone, displayed on CRT, figure 19, paragraph 0147);

acquiring color reproduction characteristics (paragraph 0072);

converting the monochrome signal into a chromaticity signal of the color space (paragraph 0067) using the tint adjustment value set in the setting step (paragraph 0148) and the color reproduction characteristics acquired in the acquiring step (paragraph 0072); and

forming a color space color signal from the chromaticity signal converted in the converting step (paragraph 0162) and a brightness signal according to the monochrome signal (paragraph 0139), and outputting the color space color signal (paragraph 0144),

Yoshida does not expressly disclose acquiring color reproduction characteristics dependent on an image output apparatus and a recording medium.

Kondo, in the same area of adjusting color tone in a color image, discloses a method and apparatus for correcting color on a sheet based on the printing medium and printing machine characteristics (column 2, lines 40-57).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Yoshida's color conversion method by the teaching of Kondo because it would allow the method to adjust the image output according to the printing medium and printer profile to produce an output image according to the user preferences regardless of the printing conditions (column 1, lines 50-65).

Yoshida, as modified by Kondo, still does not teach wherein, in the converting step, the monochrome signal is converted so as to map chromaticity points of black print color and white print color depending on the image output apparatus and the

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recording medium, and map a chromaticity point of the tint adjustment value for middle lightness excepting neighborhoods of black print color and white print color.

Lin, in the same area of image processing, discloses a process (figure 2) of color conversion, white point and black point mapping (figure 4A and abstract), and mid-tone adjustment to obtain the correct brightness of an image (column 6, lines 11-24).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Yoshida/Kondo's color conversion method by the teaching of Lin because black and white point mapping would increase a dynamic range of an image, as well as remove any color cast from the image (column 1, lines 65-67 - column 2, lines 1-2).

6. As to **claim 42**, Kondo further discloses wherein, in the acquiring step, the color reproduction characteristics is acquired from a profile of the image output apparatus (column 3, lines 58-67).

7. As to **claim 43**, Yoshida further discloses wherein, in the setting step, the chromaticity point for adjusting the monochrome signal is set as the tint adjustment value (paragraph 0147).

8. As to **claim 44**, Yoshida further discloses wherein the chromaticity point is set in a predetermined range in the setting step (user selecting tone by using the control bars 47-49, figure 19 and paragraph 0149).

9. As to **claim 55**, Yoshida further discloses wherein, in the converting step, the monochrome signal is converted into a chromaticity point determined by a rate of change in the neighborhoods of black print color and white print color (monochrome

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image produced depends on user operating control bars 47-49 from maximum to minimum level, paragraph 0149).

10. **Claims 46-50** are a color conversion apparatus for converting a monochrome signal into a color space color signal on a color space independent of an apparatus (paragraph 0027) correspond to method **claims 41-45**. Therefore they have been analyzed and rejected based on method **claims 41-45** respectively.

11. As to **claim 51**, Yoshida further discloses a computer readable recording medium, storing, in executable form, a computer program for causing a computer to execute the color conversion method according to claim 41 (paragraph 0027).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUNG D. TRAN whose telephone number is (571)270-5309. The examiner can normally be reached on Monday-Friday 7:30AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. D. T./
Examiner, Art Unit 2625

/Mark K Zimmerman/
Supervisory Patent Examiner, Art Unit 2625